



STATE OF DELAWARE  
EXECUTIVE DEPARTMENT  
OFFICE OF  
STATE PLANNING COORDINATION

August 17, 2005

Mr. Douglas Barry  
Pennonni Associates  
62 Rockford Road, Ste. 201  
Wilmington, De 19805

RE: PLUS review – PLUS 2005-07-05; Staats Property residential subdivision

Dear Mr. Barry:

Thank you for meeting with State agency planners on July 27, 2005 to discuss the proposed plans for Staats property project to be located on the north and south side of Route 42, near Leipsic. According to the information received, you are seeking subdivision plan approval for 132 units on 342.5 acres. This proposal is located in Investment Level 4 according to the *Strategies for State Policies and Spending*, and is outside of the Kent County Growth Zone. **The comments in this letter are technical, and are not intended to suggest that the State supports this development proposal. This letter does not in any way suggest or imply that you may receive or may be entitled to permits or other approvals necessary to construct the development you indicate or any subdivision thereof on these lands.**

Please note that changes to the plan, other than those suggested in this letter, could result in additional comments from the State. Additionally, these comments reflect only issues that are the responsibility of the agencies represented at the meeting. The developers will also need to comply with any Federal, State and local regulations regarding this property. We also note that as Kent County is the governing authority over this land, the developers will need to comply with any and all regulations/restrictions set forth by the County. The following are a complete list of comments received by State agencies:

**Office of State Planning Coordination – Contact: David Edgell 739-3090**

This project represents a major land development that will result in 132 residential units in an Investment Level 4 area according to the *2004 Strategies for State Policies and*

*Spending.* This project is also located outside of the Kent County Growth Zone. Level 4 indicates where State investments will support agricultural preservation, natural resource protection, and the continuation of the rural nature of these areas. New development activities and suburban development are not supported in Investment Level 4. These areas are comprised of prime agricultural lands and environmentally sensitive wetlands and wildlife habitats, which should be, and in many cases have been preserved.

From a fiscal responsibility perspective, development of this site is likewise inappropriate. The cost of providing services to development in rural areas is an inefficient and wasteful use of the State's fiscal resources. The project as proposed is likely to bring more than 345 new residents to an area where the State has no plans to invest in infrastructure upgrades or additional services. These residents will need access to such services and infrastructure as schools, police, and transportation. To provide some examples, the State government funds 100% of road maintenance and drainage improvements for the transportation system, 100% of school transportation and paratransit services, up to 80% of school construction costs, and 100% of the cost of police protection in the unincorporated portion of Kent County where this development is proposed. Over the longer term, the unseen negative ramifications of this development will become even more evident as the community matures and the cost of maintaining infrastructure and providing services increases.

Because the development is inconsistent with the Strategies for State Policies and Spending, the State is opposed to this proposed subdivision.

**Division of Historic and Cultural Affairs – Contact: Alice Guerrant 739-5685**

The Division of Historic and Cultural Affairs does not approve of this project because it is in Investment Level IV and will have an adverse effect on historic resources by changing the rural agricultural landscape of this area and by damaging or destroying archaeological sites within the parcel. It is immediately adjacent to Snowland (K-132), which is listed in the National Register of Historic Places. The development plans do show a substantial buffer around Snowland, both on the north and south sides of Fast Landing Rd., which will help mitigate the adverse visual effects. There will also be adverse effects on the historic properties in Leipsic, many of which are listed in the National Register of Historic Places, through the introduction of increased traffic and noise. The historic farmstead (K-2053), which once stood within the parcel on the north side of Fast Landing Rd., was demolished by the previous owner.

There is also the Naudain Cemetery (K-6316) within the southern half of the parcel. While this cemetery is walled, there is still the potential for unmarked burials to lie outside of the walls. Such burials are protected by Delaware's Unmarked Human Remains Act of 1997. The developers have designed the project to leave the cemetery well within their open space. However, when laying out the lines to the sewer treatment plant, the developers should stay away from the cemetery by at least 100' – 150' outside of the walls. The safest course would be to hire an archaeological consultant to test

around the cemetery and delineate any burials that may exist outside the walls so that the developers can be sure to avoid them and thus avoid any delays in their project should human bone be accidentally discovered. Faye Stocum of this office is the contact person for this issue, and would be happy to discuss this with the developer in more detail. She can be reached at (302) 739-5685.

There are several known prehistoric sites along Dyke Branch in the southern half of this development. While much of the site area appears to be in the buffer provided along Dyke Branch, some could be within the proposed sewer treatment plant area, which has not yet been specifically located. We would appreciate the opportunity to examine and lay out the sites' boundaries with the developer, in hopes that they could be avoided and preserved in open space. There is also a high potential for early historic-period and prehistoric-period archaeological sites elsewhere on both the north and south sides of Fast Landing Rd. We would appreciate the opportunity to examine the rest of the project area for archaeological sites, so we could learn something about their location and character prior to any ground-disturbing activities.

**Department of Transportation – Contact: Bill Brockenbrough 760-2109**

This development is proposed for an area designated as Level 4 under the *Strategies for State Policies and Spending*. The *Strategies for State Policies and Spending* and Kent County's approved Comprehensive Plan have deemed the type of development being proposed inappropriate for this area. As part of DelDOT's commitment to support the *Strategies*, DelDOT refrains from participating in the cost of any road improvements needed to support this development and is opposed to any road improvements that will substantially increase the transportation system capacity in this area. DelDOT will only support taking the steps necessary to preserve the existing transportation infrastructure and make whatever safety and drainage related improvements are deemed appropriate and necessary. The intent is to preserve the open space, agricultural lands, natural habitats and forestlands that are typically found in Level 4 Areas while avoiding the creation of isolated development areas that cannot be served effectively or efficiently by public transportation, emergency responders, and other public services.

DelDOT strongly supports new development in and around existing towns and municipalities and in areas designated as growth zones in approved Comprehensive Plans. We encourage the use of transfer of development rights where this growth management tool is available.

If this development proposal is approved, notwithstanding inconsistencies with the relevant plans and policies, DelDOT will provide technical review and comments.

**The Department of Natural Resources and Environmental Control – Contact:  
Kevin Coyle 739-9071**

**Investment Level 4 Policy Statement**

This project is proposed for an Investment Level 4 area as defined by the *Strategies for State Policies and Spending* and is also located outside of a designated growth area in the relevant municipal and county certified comprehensive plans. According to the *Strategies* this project is inappropriate in this location. In Investment Level 4 areas, the State's investments and policies, from DNREC's perspective, should retain the rural landscape and preserve open spaces and farmlands. Open space investments should emphasize the protection of critical natural habitat and wildlife to support a diversity of species, and the protection of present and future water supplies. Open space investments should also provide for recreational activities, while helping to define growth areas. Additional state investments in water and wastewater systems should be limited to existing or imminent public health, safety or environmental risks only, with little provision for additional capacity to accommodate further development.

With continued development in Investment Level 4 areas, the State will have a difficult, if not impossible, time attaining water quality (e.g., TMDLs) and air quality (e.g., non-attainment areas for ozone and fine particulates) goals. Present and future investments in green infrastructure, as defined in Governor Minner's Executive Order No. 61, will be threatened. DNREC strongly supports new development in and around existing towns and municipalities and in areas designated as growth zones in certified Comprehensive Plans. We encourage the use of transfer of development rights where this growth management tool is available.

This particular development certainly compromises the integrity of the State Strategies and the preservation goals inherent in many of DNREC's programs. Of particular concern is that the project impacts all three layers of the Green Infrastructure map: cropland, forest, and natural resources (including wetlands and a State Resource Area). While mitigating measures such as conservation design, central wastewater systems instead of individual on-site septic systems, and other best management practices may help mitigate impacts from this project, not doing the project at all is the best avenue for avoiding negative impacts. As such, this project will receive no financial, technical or other support of any kind from DNREC. Any required permits or other authorizations for this project shall be considered in light of the project's conflict with our State growth strategies.

**Green Infrastructure**

Portions or all of the lands associated with this proposal are within the Livable Delaware Green Infrastructure area established under Governor Minner's Executive Order #61 that represents a network of ecologically important natural resource lands of special state conservation interest.

Green infrastructure is defined as Delaware's natural life support system of parks and preserves, woodlands and wildlife areas, wetlands and waterways, productive agricultural and forest land, greenways, cultural, historic and recreational sites and other natural areas all with conservation value. Preserving Delaware's Green Infrastructure network will support and enhance biodiversity and functional ecosystems, protect native plant and animal species, improve air and water quality, prevent flooding, lessen the disruption to natural landscapes, provide opportunities for profitable farming and forestry enterprises, limit invasive species, and foster ecotourism.

Voluntary stewardship by private landowners is essential to green infrastructure conservation in Delaware, since approximately 80 percent of the State's land base is in private hands. It is in that spirit of stewardship that the Department appeals to the landowner and development team to protect sensitive resources through an appropriate site design.

### **Soils**

According to the Kent County soil survey, wetland associated (**hydric**) Tidal Marsh soils were mapped on subject parcel(s). This soil mapping unit has very severe limitations for development.

### **Wetlands**

Statewide Wetland Mapping Project (SWMP) maps indicate the presence of palustrine tidal and estuarine wetlands on this parcel. The parcel has numerous blue line streams on site.

Lots should be removed in their entirety from the wetland complex. Vegetated buffers comprised of native trees, shrubs or no-mow grasses, of no less than 100 feet should be employed from the edge of the wetland complex. The developer should note that both DNREC and Army Corps of Engineers discourage allowing lot lines to contain wetlands to minimize potential cumulative impacts resulting from unauthorized and/or illegal activities and disturbances that can be caused by homeowners.

It should also be noted that this parcel borders headwater (Dyke Branch) or near headwater (upper reaches of the Leipsic River) riparian wetlands which eventually drain to the environmentally sensitive greater Leipsic River subwatershed. Headwater riparian wetlands are important for the protection of water quality and the maintenance/integrity of the ecological functions throughout the length of the stream, including the floodplain system and/or water bodies further downstream. Since such streams are a major avenue for nutrient-laden stormwater and sediment runoff, their protection deserves the highest priority. **In recognition of this concern, the Department strongly recommends that the applicant preserve the existing riparian buffer (where it still exists) in its**

**entirety. Otherwise – as mentioned previously - a 100-foot buffer width is considered the minimum acceptable distance from all wetlands and water bodies (including ditches).** In cases where natural buffer vegetation has been removed or reduced by past development or farming activities, the developer is encouraged to restore/establish to said buffer width or greater with native herbaceous and/or woody vegetation.

### **Wetland Permitting Information**

The developer and County should note that impacts to these wetlands and drainage ditches are regulated by both the DNREC Wetlands and Subaqueous Lands Section and the Army Corps of Engineers through the Delaware Subaqueous Lands Act and Section 404 of the Federal Clean Water Act. In addition, individual 404 permits and certain Nationwide Permits from the Army Corps of Engineers also require 401 Water Quality Certification from the DNREC Wetland and Subaqueous Land Section and Coastal Zone Federal Consistency Certification from the DNREC Division of Soil and Water Conservation, Delaware Coastal Programs Section. Each of these certifications represents a separate permitting process.

Because there is strong evidence that federally regulated wetlands exist on site, a wetland delineation, in accordance with the methodology established by the Corps of Engineers Wetlands Delineation Manual, (Technical Report Y-87-1) should be conducted. Once complete, this delineation should be verified by the Corps of Engineers through the Jurisdictional Determination process.

To find out more about permitting requirements, the applicant is encouraged to attend a Joint Permit Process Meeting. These meetings are held monthly and are attended by federal and state resource agencies responsible for wetland permitting. Contact Denise Rawding at (302) 739-4691 to schedule a meeting.

### **Water Bodies**

Vegetated buffers comprised of native trees, shrubs or no-mow grasses, of no less than 100 feet should be employed from the edge of the streams to mitigate negative impacts. Although stream impacts are not anticipated, please note that streams are regulated by the Subaqueous Land Section from DNREC Division of Water Resources and the Army Corps of Engineers.

### **Impervious Cover**

The impervious surface percentage figure given in the application appears to be a significant underestimate of the actual post-development imperviousness. It is strongly recommended that this figure be changed to more accurately reflect the actual surface imperviousness.

The Watershed Assessment Section feels that applicant should reduce imperviousness to the greatest degree practicable. Use of pervious paving materials in lieu of asphalt or concrete and the preservation and/or planting of additional trees, are examples of practical ways that will help reduce surface imperviousness. Research has consistently shown that once a watershed exceeds a threshold of 10 percent imperviousness, water and habitat quality irreversibly decline.

### **TMDLs**

A Total Maximum Daily Load (TMDL) is the maximum level of pollution for which a water quality limited water body can assimilate without compromising use and recreational goals such as swimming, fishing, drinking water, and shell fish harvesting. Although TMDLs as a “pollution runoff mitigation strategy” to reduce nutrient loading have not yet been developed for the Leipsic River subwatershed to date, work is continuing on their development and they should be completed by December 2006.

Therefore, until the specified TMDL reductions and pollution control strategies are adopted, it shall be incumbent upon the developer to employ best available technologies (BATs) and/or best management practices (BMPs) as “methodological mitigative strategies” to reduce degradative impacts associated with development. Reducing imperviousness, planting trees, and maintaining at least a 100-foot upland buffer from all streams and wetlands are some examples of mitigative strategies to reduce nutrient runoff impacts.

### **Water Supply**

The project information sheets state water will be provided to the project by the Tidewater Utilities via a central water system. DNREC records indicate that the project on the South of Route 42 is located within the public water service area granted to Tidewater Utilities under Certificate of Public Convenience and Necessity PSC-1190. However, the project on the North of Route 42 does not currently hold a certificate of public convenience and necessity (CPCN) to provide public water in these areas. They will need to file an application for a CPCN with the Public Service Commission, if they have not done so already. Information on CPCN requirements and applications can be obtained by contacting the Public Service Commission at 302-739-4247.

Should dewatering points be needed during any phase of construction, a dewatering well construction permit must be obtained from the Water Supply Section prior to construction of the well points. In addition, a water allocation permit will be needed if the pumping rate will exceed 50,000 gallons per day at any time during operation.

All well permit applications must be prepared and signed by licensed water well contractors, and only licensed well drillers may construct the wells. Please factor in the necessary time for processing the well permit applications into the construction schedule.

Dewatering well permit applications typically take approximately four weeks to process, which allows the necessary time for technical review and advertising.

Should you have any questions concerning these comments, please contact Rick Rios at 302-739-9944.

### **Sediment and Erosion Control/Stormwater Management**

A detailed sediment and stormwater plan will be required prior to any land disturbing activity taking place on the site. The plan review and approval as well as construction inspection will be coordinated through **Kent Conservation District**. Contact Jared Adkins at (302) 741-2600, ext. 3, for details regarding submittal requirements and fees.

As of April 11, 2005, stormwater best management practices must also consider water quality as well as quantity in impaired water bodies.

### **Drainage**

The plan for the proposed project does not show where stormwater management areas will be located, or how stormwater will be conveyed to the stormwater management areas. With concerns for future maintenance of drainage conveyances, the Drainage Program requests the majority of the stormwater pipes on this project be located on drainage and utility easements along the streets.

The Drainage Program requests the routing of major stormwater pipes through yards be prohibited. The Drainage Program discourages the placement of catch basins in the rear and side yards. The Drainage Program promotes the elevation of rear yards to direct stormwater towards the street for accessible maintenance of stormwater pipes.

With respect to future maintenance of drainage conveyances within the proposed subdivision that are not able to be located along a street, the Drainage Program strongly recommends said drainage conveyances be dedicated as a 30-foot drainage easement and such easement be designated as passive open space, not owned by individual landowners. Designation as open space will aid in the prevention of garages, sheds, fences, and kennels placed along the drainage conveyance preventing the maintenance of said conveyance. All stormwater pipes should be placed in the center of the 30-foot drainage easement. The easement should be planted as vegetated buffers. Trees and shrubs planted within drainage easements should be spaced to allow for mechanized drainage maintenance or the reconstruction of drainage conveyances.

A 25-foot buffer along all drainage ditches should be planted with herbaceous vegetation to aid in the reduction of sediment and nutrients entering into ditch. Grasses, forbs and sedges planted within this buffer should be native species, selected for their height, ease of maintenance, erosion control, and nutrient uptake capabilities. The ditch and buffers should be open space. Trees and shrubs planted within the ditch buffer should be native



species, spaced to allow for mechanized drainage maintenance at maturity. Trees should not be planted within 5 feet of the top of ditch to avoid future blockages from roots.

The Drainage Program requests that all precautions be taken to ensure the project does not hinder any off site drainage upstream of the project or create any off site drainage problems downstream by the release of on site storm water

Existing riparian buffers should be preserved to aid in the reduction of nutrients, sediment, and other pollutants. For the further enhancement of water quality, the Drainage Program encourages additional widths of vegetated buffers on this project.

### **Floodplains**

Portions of the site appear to be located in the 100-year floodplain. Kent County does not permit the subdivision of land within the 100-year floodplain.

### **Habitat**

A portion of this site lies within a mapped State Resource Area. State Resource areas include lands held in conservation by various groups as well as lands targeted for conservation and preservation efforts. These areas are thought to have particular conservation value. The wetlands and woodlands along this tract provide valuable wildlife corridors connecting to vast areas of conservation land.

Because of its importance to the regional ecosystem, the forested areas on site should be preserved. Lots should also exclude these areas to protect against impacts resulting from homeowner activities. Where possible, the developer should seriously consider habitat improvements such as revegetating portions of the site to increase the buffer zone to the Dyke Branch and Leipsic River.

Land set aside for conservation purposes should be placed into a permanent conservation easement or other binding conservation mechanism.

### **Open Space**

To maximize the existing buffering capacity and wildlife habitat on site, areas of community open space be designated along the forested areas.

In areas set aside for passive open space, the developer is encouraged to consider establishment of additional forested areas or meadow-type grasses. Once established, these ecosystems provide increased water infiltration into groundwater, decreased run-off into surface water, air quality improvements, and require much less maintenance than traditional turf grass, an important consideration if a homeowners association will take over responsibility for maintenance of community open spaces.

Open space containing forest and/or wetlands should be placed into a permanent conservation easement or other permanent protection mechanism. Conservation areas should also be demarked to avoid infringement by homeowners.

### **Rare Species**

DNREC has not surveyed the project area, however, a review of our database indicates that there are currently no records of state-rare or federally listed plants, animals or natural communities. They do have records of *Lycaena hyllus* (bronze copper) just downstream within tidal salt marsh habitat and this state rare butterfly likely occurs within project boundaries as well. Tidal wetlands within project boundaries should be maintained and not contain any structures, roadways, or stormwater management ponds.

### **Mosquito Control**

Development projects that result in increased housing densities, along with associated residents or visitors, within 2 miles of large expanses of salt marshes or brackish wetlands, can often lead to increased demands by the public (and their elected officials) for mosquito control services, going beyond what DNREC's Mosquito Control Section currently has the budget or resources to provide. Adverse impacts upon the State's allocation of public funds for mosquito control services must be realistically recognized as the frequent consequence of approving these types of development projects; and State and local governments should then be prepared to deal with the increased budget demands for mosquito control services. Additionally, even though the EPA has scientifically determined that EPA-registered mosquito control insecticides can be applied without posing any unreasonable risks to human health, wildlife or the environment (when used in accordance with all product label instructions), avoiding or reducing the use of such pesticides should be employed whenever possible. Limiting development that is too close to wetlands will aide in achieving a reduction in pesticide use.

### **Nuisance Waterfowl**

Stormwater management ponds that remain in the site plan may attract waterfowl like resident Canada geese and mute swans. High concentrations of waterfowl in ponds create water-quality problems, leave droppings on lawn and paved areas and can become aggressive during the nesting season. Short manicured lawns around ponds provide an attractive habitat for these species. DNREC recommends native plantings of tall grasses, wildflowers, shrubs, and trees at the edge and within a buffer area (50 feet) around the perimeter. Waterfowl do not feel safe when they can not see the surrounding area for possible predators. These plantings should be completed as soon as possible as it is easier to deter geese when there are only a few than it is to remove them once they become plentiful. The Division of Fish and Wildlife does not provide goose control services, and if problems arise, residents or the home-owners association will have to accept the burden of dealing with these species (e.g., permit applications, costs, securing services of

certified wildlife professionals). Solutions can be costly and labor intensive; however, with proper landscaping, monitoring, and other techniques, geese problems can be minimized.

### **Solid Waste**

Each Delaware household generates approximately 3,600 pounds of solid waste per year. On average, each new house constructed generates an additional 10,000 pounds of construction waste. Due to Delaware's present rate of growth and the impact that growth will have on the state's existing landfill capacity, the applicant is requested to be aware of the impact this project will have on the State's limited landfill resources and, to the extent possible, take steps to minimize the amount of construction waste associated with this development.

### **Air Quality**

Air pollution threatens the health of human beings and other living things on our planet. While often invisible, pollutants in the air create smog and acid rain, cause cancer or other serious health effects, diminish the protective ozone layer in the upper atmosphere, and contribute to the potential for world climate change. Breathing polluted air can have numerous effects on human health, including respiratory problems, hospitalization for heart or lung disease, and even premature death. Some can also have effects on aquatic life, vegetation, and animals.

Once complete, vehicle emissions associated with this project are estimated to be 10.1 tons (20,260.6 pounds) per year of VOC (volatile organic compounds), 8.4 tons (16,774.4 pounds) per year of NO<sub>x</sub> (nitrogen oxides), 6.2 tons (12,376.5 pounds) per year of SO<sub>2</sub> (sulfur dioxide), 0.6 ton (1,101.7 pounds) per year of fine particulates and 847.4 tons (1,694,775.3 pounds) per year of CO<sub>2</sub> (carbon dioxide).

***However, because this project is in a level 4 area, mobile emission calculations should be increased by 118 pounds for VOC emissions for each mile outside the designated growth areas per household unit; by 154 pounds for NO<sub>x</sub>; and by 2 pounds for particulate emissions. A typical development of 100 units that is planned 10 miles outside the growth areas will have additional 59 tons per year of VOC emissions, 77 tons per year of NO<sub>x</sub> emissions and 1 ton per year of particulate emissions versus the same development built in a growth area (level 1,2 or 3).***

Emissions from area sources associated with this project are estimated to be 4.1 tons (8,172.0 pounds) per year of VOC (volatile organic compounds), 0.4 ton (899.2 pounds) per year of NO<sub>x</sub> (nitrogen oxides), 0.4 ton (746.2 pounds) per year of SO<sub>2</sub> (sulfur dioxide), 0.5 ton (962.9 pounds) per year of fine particulates and 16.6 tons (33,127.6 pounds) per year of CO<sub>2</sub> (carbon dioxide).

Emissions from electrical power generation associated with this project are estimated to be 1.6 tons (3,238.8 pounds) per year of NO<sub>x</sub> (nitrogen oxides), 5.6 tons (11,265.4 pounds) per year of SO<sub>2</sub> (sulfur dioxide) and 830.8 tons (1,661,647.7 pounds) per year of CO<sub>2</sub> (carbon dioxide).

	VOC	NO <sub>x</sub>	SO <sub>2</sub>	PM <sub>2.5</sub>	CO <sub>2</sub>
Mobile	10.1	8.4	6.2	0.6	847.4
Residential	4.1	0.4	0.4	0.5	16.6
Electrical Power		1.6	5.6		830.8
TOTAL	14.2	10.4	12.2	1.1	1694.8

The Department of Natural Resources and Environmental Control is asking that local jurisdictions consider mitigation to help resolve this issue. Mitigation might involve limiting large new developments to growth zones, focusing development to urban areas capable of providing mass transit services, requiring more energy efficient homes which would lessen air quality impacts, and promoting walkability and bikability within and between developments and town centers.

For this project the electrical usage via electric power plant generation alone totaled to produce an additional 1.6 tons of nitrogen oxides per year and 5.6 tons of sulfur dioxide per year.

A significant method to mitigate this impact would be to require the builder to construct Energy Star qualified homes. Every percentage of increased energy efficiency translates into a percent reduction in pollution. Quoting from their webpage, <http://www.energystar.gov/>:

“ENERGY STAR qualified homes are independently verified to be at least 30% more energy efficient than homes built to the 1993 national Model Energy Code or 15% more efficient than state energy code, whichever is more rigorous. These savings are based on heating, cooling, and hot water energy use and are typically achieved through a combination of:

- building envelope upgrades,
- high performance windows,
- controlled air infiltration,
- upgraded heating and air conditioning systems,
- tight duct systems and
- upgraded water-heating equipment.”

The DNREC Energy Office is in the process of training builders in making their structures more energy efficient. The Energy Star Program is excellent way to save on

energy costs and reduce air pollution. It is highly recommend this project development and other residential proposals increase the energy efficiency of their homes.

DNREC also recommends that the home builders offer geothermal and photo voltaic energy options. Applicable vehicles should use retrofitted diesel engines during construction. The development should provide tie-ins to the nearest bike paths and links to mass transport system, and fund a lawnmower exchange program for their new occupants.

**State Fire Marshal's Office – Contact: John Rossiter 302-739-4394**

These comments are intended for informational use only and do not constitute any type of approval from the Delaware State Fire Marshal's Office. At the time of formal submittal, the applicant shall provide; completed application, fee, and three sets of plans depicting the following in accordance with the Delaware State Fire Prevention Regulation (DSFPR):

a. **Fire Protection Water Requirements:**

- Water distribution system capable of delivering at least 1500 gpm for 2-hour duration, at 20-psi residual pressure is required. Fire hydrants with 800 feet spacing on centers. (Treatment)
- Where a water distribution system is proposed for single family dwellings it shall be capable of delivering at least 500 gpm for 1-hour duration, at 20-psi residual pressure. Fire hydrants with 1000 feet spacing on centers are required. (One & Two- Family Dwelling)
- Where a water distribution system is proposed for the site, the infrastructure for fire protection water shall be provided, including the size of water mains for fire hydrants and sprinkler systems.

b. **Fire Protection Features:**

- All structures over 10,000 Sq. Ft. aggregate will require automatic sprinkler protection installed.
- Buildings greater than 10,000 sq.ft., 3-stories of more or over 35 feet, or classified as High Hazard, are required to meet fire lane marking requirements.
- Show Fire Department Connection location (Must be within 300 feet of fire hydrant), and detail as shown in the DSFPR.
- Show Fire Lanes and Sign Detail as shown in DSFPR

c. **Accessibility**

- All premises which the fire department may be called upon to protect in case of fire, and which are not readily accessible from public roads, shall be provided with suitable gates and access roads, and fire lanes so that all buildings on the premises are accessible to fire apparatus. This means that

the access road to the subdivision from Fast Landing Road must be constructed so fire department apparatus may negotiate it.

- Fire department access shall be provided in such a manner so that fire apparatus will be able to locate within 100 ft. of the front door.
- Any dead end road more than 300 feet in length shall be provided with a turn-around or cul-de-sac arranged such that fire apparatus will be able to turn around by making not more than one backing maneuver. The minimum paved radius of the cul-de-sac shall be 38 feet. The dimensions of the cul-de-sac or turn-around shall be shown on the final plans. Also, please be advised that parking is prohibited in the cul-de-sac or turn around.
- The use of speed bumps or other methods of traffic speed reduction must be in accordance with Department of Transportation requirements.
- The local Fire Chief, prior to any submission to our Agency, shall approve in writing the use of gates that limit fire department access into and out of the development or property.

d. **Gas Piping and System Information:**

- Provide type of fuel proposed, and show locations of bulk containers on plan.

e. **Required Notes:**

- Provide a note on the final plans submitted for review to read “ All fire lanes, fire hydrants, and fire department connections shall be marked in accordance with the Delaware State Fire Prevention Regulations”
- Proposed Use
- Alpha or Numerical Labels for each building/unit for sites with multiple buildings/units
- Square footage of each structure (Total of all Floors)
- National Fire Protection Association (NFPA) Construction Type
- Maximum Height of Buildings (including number of stories)
- Note indicating if building is to be sprinklered
- Name of Water Provider
- Letter from Water Provider approving the system layout
- Provide Lock Box Note (as detailed in DSFPR) if Building is to be sprinklered
- Provide Road Names, even for County Roads

Preliminary meetings with fire protection specialists are encouraged prior to formal submittal. Please call for appointment. Applications and brochures can be downloaded from our website: [www.delawarestatefiremarshal.com](http://www.delawarestatefiremarshal.com), technical services link, plan review, applications or brochures.

**Department of Agriculture - Contact: Milton Melendez 698-4500**

The proposed development is in an area designated as Level 4 under the Strategies for State Policies and Spending. The Strategies and the Kent County Comprehensive Plan do not support this type of isolated development in this area. The intent of these plans is to preserve the agricultural lands, forestlands, recreational uses, and open spaces that are preferred uses in Level 4 areas. The Department of Agriculture opposes the proposed development which conflicts with the preferred land uses, making it more difficult for agriculture and forestry to succeed, and increases the cost to the public for services and facilities.

The Department of Agriculture also opposes this project because it negatively impacts those land uses that are the backbone of Delaware's resource industries - agriculture, forestry, horticulture - and the related industries they support. The Department of Agriculture and the Department of Natural Resource and Environmental Control, along with other partners developed the State's "Green Infrastructure" Investment Strategy. This strategy identifies high-value cropland, forestland and natural resource lands for preservation and conservation. Both parcels contained within this proposed development are designated as high value cropland on the Green Infrastructure Investment Strategy. In other words, in addition to their location in a rural area, due to their soil quality and other significant factors, these lands have been further designated by the State for conservation and preservation.

Furthermore, often new residents of developments like this one, with little understanding or appreciation for modern agriculture and forestry, find their own lifestyles in direct conflict with the demands of these industries. Often these conflicts result in compromised health and safety; one example being decreased highway safety with farm equipment and cars competing on rural roads. The crucial economic, environmental and open space benefits of agriculture and forestry are compromised by such development. DDA is opposed to the creation of isolated development areas that are inefficient in terms of the full range of public facilities and services funded with public dollars. Public investments in areas such as this are best directed to agricultural and forestry preservation.

The Delaware Department of Agriculture supports growth which expands and builds on existing urban areas and growth zones in approved State, county and local plans. Where additional land preservation can occur through the use of transfer of development rights, and other land use measures, we will support these efforts and work with developers to implement these measures. If this project is approved we will work with the developers to minimize impacts to the agricultural and forestry industries.

**Public Service Commission - Contact: Andrea Maucher 739-4247**

The project is not within a certificated area. Should the developer seek wastewater services from a non-governmental entity, and there would be 50 or more customers served, the provider will need to apply to the Commission for a Certificate of Public Convenience and Necessity (CPCN). Additional requirements may apply if the provider has not previously been awarded a CPCN by the Commission.

Any expansion of natural gas or installation of a closed propane system must fall within Pipeline Safety guidelines. Contact: Malak Michael at (302) 739-4247.

**Delaware State Housing Authority – Contact Karen Horton 739-4263**

According to the *State Strategies Map*, the proposal is located in an Investment Level 4 and east of SR 1. As a general planning practice, DSHA encourages residential development in areas where residents will have proximity to services, markets, and employment opportunities such as Investment Level 1 and 2 areas outlined in the State Strategies Map. The proposal is located in an area targeted for agricultural and natural resource protection, and therefore inconsistent with where the State would like to see new residential development.

**Delaware Economic Development Office – Contact: Gary Smith 739-4271**

The Delaware Economic Development Office is not in favor of this project in a Level 4 area. Our office supports the Delaware Strategies for State Policies and Spending policy regarding Level 4 activities.

**Following receipt of this letter and upon filing of an application with the local jurisdiction, the applicant shall provide to the local jurisdiction and the Office of State Planning Coordination a written response to comments received as a result of the pre-application process, noting whether comments were incorporated into the project design or not and the reason therefore.**

Thank you for the opportunity to review this project. If you have any questions, please contact me at 302-739-3090.

Sincerely,

A handwritten signature in blue ink that reads "Constance C. Holland". The signature is fluid and cursive, with the first name "Constance" being the most prominent part.

Constance C. Holland, AICP  
Director

CC: Kent County  
Town of Leipsic